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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,737	04/09/2004	Jong-cun Chae	1572.1290	9002
21171 7590 02/20/2007 STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER EARLY, MICHAEL JACOBY	
			ART UNIT 3744	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			02/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/820,737

Applicant(s)

CHAE ET AL.

Examiner

Michael J. Early

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 November 2006 and 22 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                       |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

**DETAILED ACTION**

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7-13 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kiyoshi (JP 05141864).

Regarding claim 1, Kiyoshi discloses a refrigerator (1 – domestic refrigerator) comprising a main body (2 – heat insulation box) formed with a storing compartment (12 – freezer compartment) (as seen in Figure 2); a first cool air duct (flow path that begins beneath condenser [24] and ends above condenser room [23]; Figure 1) provided in a rear of the main body (as seen in Figure 1); a lamp unit (as seen in the illustration of Figure 3 below) mounted in an upper part of the main body (as seen in Figure 1) and comprising a lamp (44 – unnamed element) and a lamp case (as seen in Figure 3); the lamp case extending from the rear of the main body to a front of the storing compartment of the main body (as seen in Figure 1); and a second cool air duct (40 – duct) that is formed in an upper part of the lamp case to communicate with the first cool air duct (as seen in Figure 1) and allows cool air flowing through the first cool air duct to flow out at the front of the storing compartment of the main body (as seen in Figure 1).

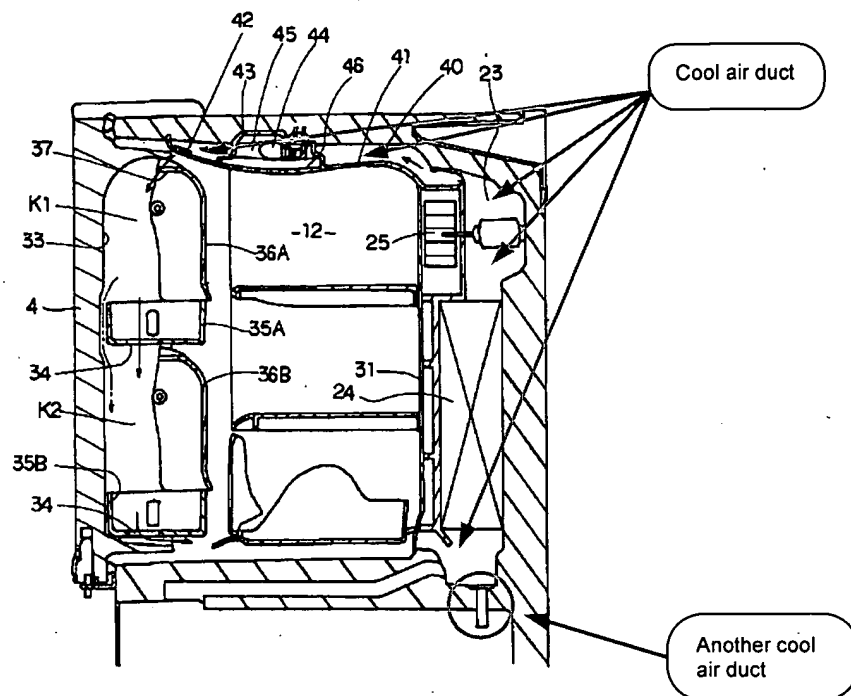


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Regarding claim 10, Kiyoshi discloses the lower case comprises an insulator (see paragraph 0013).

Regarding claim 11, Kiyoshi discloses an air chamber (46 – wrap transparence cover) located at a front of the lamp unit and coupled to the second cool air duct (as seen in Figure 1), wherein the cool air from the second cool air duct is discharged through the air chamber to the front of the storage compartment (as seen in Figure 1) and the air chamber includes a discharge grate (42 – outlet) to disperse the cool air evenly across the front of the storage compartment (a seen in Figures 1, 3).

Regarding claim 12, Kiyoshi discloses a refrigerator (1 – domestic refrigerator) comprising a main body (2 – heat insulation box) housing a plurality of refrigeration components (as seen in Figures 1, 2) and a climate controlled storage compartment (stockroom, paragraph 0009) that includes an opening selectively covered by a door (5, 6 – doors) (as seen in Figure 2); a lamp unit (as seen in the illustration of Figure 3 above) mounted above the storage compartment (as seen in Figures 1, 2), the lamp unit extending from a rear of the storage compartment to a front of the storage compartment (as seen in Figure 1); a cool air duct (as seen in the illustration of Figure 1 below) contiguous with the lamp unit (as seen in Figure 1) wherein the cool air flowing from the plurality of refrigeration components is discharged to a front of the storage compartment by the cool air duct (as seen in Figure 1); and an air chamber (46– wrap transparence cover) located at a front of the lamp unit and coupled to the cool air duct (as seen in Figure 1), wherein the cool air from the cool air duct is discharged through the air chamber to the front of the storage compartment (as seen in Figure 1).



(Illustration of Figure 1)

With regards to those limitations that are functional recitations, a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the *structural* limitations of the claimed.

Regarding claim 13, Kiyoshi discloses the cool air duct comprises a lower air duct (flow path that begins beneath condenser [24] and ends above condenser room [23]; Figure 1) and an upper air duct (40 – duct) coupled together and demountably combined with the lamp unit (see paragraph 0013; Figure 1).

Regarding claims 18 and 19, Kiyoshi discloses the recited limitations above in claim 11.

Regarding claim 20, Kiyoshi discloses the climate controlled storage compartment comprises another cool air duct (as seen in the illustration of Figure 1 above) that is

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mounted at a rear thereof and in communication with the cool air duct (as seen in Figure 1).

With regards to those limitations that are functional recitations, a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the *structural* limitations of the claimed.

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-6 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiyoshi in view of Rudick (US 4,970,871 A).

Kiyoshi does not expressly disclose details related to duct insulation.

Rudick teaches of a refrigerator that is comprised of a liquid dispensing system (see col. 1, lines 36-50). Rudick further discloses that the refrigerator is comprised of an insulated duct (32) that is used to transport cool air from one portion of the refrigerator to another (see col. 3, lines 14-60; Figures 2-4).

It would have been obvious to one of ordinary skill in the art to modify the existing apparatus of Kiyoshi by incorporating insulation allow the apparatus' ducts, as taught by Rudick, so that the temperature of the cooling fluid within the ducts is properly maintained, thus extending the quality life of the enclosed food items.

#### **Response to Arguments**

Applicant's arguments, see Remarks (pages 5-7), filed 11/22/06, with respect to the rejection(s) of claim(s) 1 and 12 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kiyoshi (JP 05141864).

#### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Early whose telephone number is (571) 272-3681. The examiner can normally be reached on Monday - Friday, 7am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.




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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJE  
1/29/07

Michael J. Early  
Patent Examiner  
Art Unit 3744

  
CHERYL TYLER  
SUPERVISORY PATENT EXAMINER

